

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

(248) 647-6000

TROY, MICHIGAN 48007-7021

In re application of: Ferree

Serial No.: 10/657,914

Group No.: 3738

Filed: Sept. 9, 2003

Examiner: P. Prebilic

For: BIORESORBABLE COMPONENTS AND METHODS FOR SPINAL ARTHROPLASTY

**APPELLANT'S APPEAL BRIEF UNDER 37 CFR §41.37**

Mail Stop Appeal Brief  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**I. Real Party in Interest**

The real party and interest in this case is Dr. Bret A. Ferree, Applicant and Appellant.

**II. Related Appeals and Interferences**

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims**

The present application was filed with 8 claims. Claims 9-20 were added by amendment. Claims 9-20 have been canceled. Claims 1-8 are pending, rejected and under appeal. Claim 1 is the sole independent claim.

**IV. Status of Amendments Filed Subsequent  
Final Rejection**

An after-final amendment is attached hereto, amending claim 1 and canceling claim 3. In addition, the dependency of claims 4 and 7 has been amended to depend upon claim 1. Appellant respectfully requests entry of the attached amendment.

## V. Summary of Claimed Subject Matter

Independent claim 1 is directed to improved spinal arthroplasty apparatus. The system comprises one or more bio-resorbable components located outside of an intradiscal space to retain and temporarily limit the motion of an artificial disc replacement (ADR) within the intradiscal space until soft tissues surrounding the spine heal. (Specification, page 3, lines 3-19).

## VI. Grounds of Objection/Rejection To Be Reviewed On Appeal

A. The rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,120, 503 to Michelson et al. and under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,695,845 to Dixon et al.

B. The rejection of claim 4 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,120, 503 to Michelson et al. and under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,695,845 to Dixon et al.

C. The rejection of claim 5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,120, 503 to Michelson et al. and under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,695,845 to Dixon et al.

D. The rejection of claim 6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,120, 503 to Michelson et al. and under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,695,845 to Dixon et al.

E. The rejection of claim 7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,120, 503 to Michelson et al. and under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,695,845 to Dixon et al.

## VII. Argument

### A. The rejection of claim 1 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e)

Pursuant to an after-final amendment submitted herewith, the limitation of claim 3, namely, "wherein the bio-resorbable components facilitate a limited degree of motion or mobility during or after healing," has been moved into claim 1. Claim 3 was rejected under 35 U.S.C. §102(b) over Michelson et al. ('503) on the grounds that "the claim features are considered to be inherent since all solid

materials would have these properties to some extent. Additionally, the staple [12 of Michelson] would inherently limit the degree of motion until it is resorbed."

It is Appellant's position that the limitations of claim 3, now forming part of claim 1, have been ignored. Nowhere in Michelson et al. is there a teaching or suggestion that the "staple 12" facilitate the limited degree of motion or mobility at any time. Indeed, the system of Michelson et al. is intended for permanent fixation and immobility of the spinal segments. Accordingly, *prima facie* anticipation has not been established. Although claims 1-8 were also rejected under 35 U.S.C. §102(e) over Dixon ('845), the Examiner doesn't even mention why Dixon anticipates the claim language of claim 3, now forming a part of claim 1.

B. The rejection of claim 4 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e)

Claim 4 includes the limitation that the limited degree of freedom or mobility made possible by the bio-resorbable component(s) is controlled by the flexibility of the bio-resorbable components. Claim 4 stands rejected under 35 U.S.C. §102(b) over Michelson et al., and under 35 U.S.C. §102(e) over Dixon et al. Despite the Examiner's argument that "all solid materials would have these properties to some extent," the use of a bio-resorbable component that has a flexibility to control a limited degree of motion of mobility is neither taught nor suggested by either reference. Accordingly, *prima facie* anticipation has not been established.

C. The rejection of claim 5 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e)

Claim 5 includes the limitation that the flexibility of the bio-resorbable components is due in part to the modulus of elasticity of the bioresorbable components. Claim 5 stands rejected under 35 U.S.C. §102(b) over Michelson et al., and under 35 U.S.C. §102(e) over Dixon et al. Despite the Examiner's argument that "all solid materials would have these properties to some extent," the limitation use of a bio-resorbable component that the flexibility of the bio-resorbable components is due in part to the modulus of elasticity of the bioresorbable components is neither taught nor suggested by either reference. Accordingly, *prima facie* anticipation has not been established.

D. The rejection of claim 6 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e)

Claim 6 includes the limitation that the flexibility of the bio-resorbable components is due in part to the thickness or other physical attribute of the bioresorbable components. Claim 6 stands rejected under 35 U.S.C. §102(b) over Michelson et al., and under 35 U.S.C. §102(e) over Dixon et al. Despite the Examiner's argument that "all solid materials would have these properties to some extent," the limitation of flexibility of the bio-resorbable components being due in part to the thickness or other physical attribute of the bioresorbable components is neither taught nor suggested by either reference. Accordingly, *prima facie* anticipation has not been established.

E. The rejection of claim 7 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e)

Claim 7 includes the limitation that the limited degree of motion or mobility is controlled by the rate of resorbtion of the bio-resorbable components. Claim 7 stands rejected under 35 U.S.C. §102(b) over Michelson et al., and under 35 U.S.C. §102(e) over Dixon et al. Despite the Examiner's argument that "all solid materials would have these properties to some extent," the use of a bio-resorbable component providing a limited degree of motion or mobility being controlled by the rate of resorbtion of the bio-resorbable components is neither taught nor suggested by either reference. Accordingly, *prima facie* anticipation has not been established.

**Conclusion**

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellant seeks the Board's concurrence at this time.

Respectfully submitted,

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**APPENDIX A****CLAIMS ON APPEAL**

1. Improved spinal arthroplasty apparatus, comprising:  
one or more bio-resorbable components located outside of an intradiscal space to retain and temporarily limit the motion of an artificial disc replacement (ADR) within the intradiscal space until soft tissues surrounding the spine heal.
2. The improvement of claim 1, wherein the bio-resorbable components include a rod, plate, screw, or a combination thereof.
3. The improvement of claim 1, wherein the bio-resorbable components facilitate a limited degree of motion or mobility during or after healing.
4. The improvement of claim 3, wherein the limited degree of motion or mobility is controlled by the flexibility of the bioresorbable components.
5. The improvement of claim 4, wherein the flexibility of the bio-resorbable components is due in part to the modulus of elasticity of the bioresorbable components.
6. The improvement of claim 4, wherein the flexibility of the bio-resorbable components is due in part to the thickness or other physical attribute of the bioresorbable components.
7. The improvement of claim 3, wherein the limited degree of motion or mobility is controlled by the rate of resorbtion of the bio-resorbable components.
8. The improvement of claim 1, further including an allograft ADR.

**APPENDIX B**

**EVIDENCE**

None.

**APPENDIX C**

**RELATED PROCEEDINGS**

None.